

1. (Amended) A method of forming a fine pattern, comprising the steps of:  
forming a silicon-oxide-based film over a substrate;  
forming a chemically-amplified photoresist layer on the silicon-oxide-based film;  
and  
transferring a mask pattern onto the chemically-amplified photoresist layer upon exposure through a mask; wherein, in the step of forming the silicon-oxide-based film, a nitrogen content of the surface of the silicon-oxide-based film is made to about a value of 0.1 atm.% or less.

2. (Amended) The method of forming a fine pattern according to claim 1, wherein the silicon-oxide-based film is deposited at a temperature of 400°C or more by means of a plasma CVD technique.

3. (Amended) The method of forming a fine pattern according to claim 1, wherein a step of exposing a surface of the silicon-oxide-based film to plasma atmosphere of O<sub>2</sub> or N<sub>2</sub>O is added between the step of depositing the silicon-oxide-based film and the step of forming the chemically-amplified photoresist layer.

4. (Amended) A semiconductor device comprising:  
a substrate; and  
a silicon-oxide-based film which is formed over the substrate; in which nitrogen content of an upper boundary area of the silicon-oxide-based film is about a value of 0.1 atm.% or less.

5. (Amended) A method of manufacturing a semiconductor device, comprising the steps of:  
forming a silicon-oxide-based film over an underlying layer, a surface of the silicon-oxide-based film having a nitrogen content of 0.1 atm. % or less;  
forming a chemically-amplified photoresist layer on the silicon-oxide-based film;  
transferring a mask pattern onto the chemically-amplified photoresist layer upon exposure through a mask; and